ARTICLE APPEARED
ON PAGE 9

AVIATION WEEK & SPACE TECHNOLOGY 22 August 1983

## U.S. Scrutinizing New Soviet Ragar

By Philip J. Klass

Washington—New Soviet ballistic missile detection radar in central Siberia near three SS-18 heavy ICBM missile fields will be one of the targets of an Air Force/Lockheed KH-9 low-altitude photo-reconnaissance satellite launched July 31 on a USAF Martin Marietta Titan 3B.

Its high-resolution imagery may enable U. S. intelligence officials to assess more accurately whether the radar is a technical violation of the Antiballistic Missile Treaty (AW&ST June 5, 1972, p. 14).

The radar is under construction near the village of Abalakova, in south-central Siberia, at a latitude of approximately 58.08 N. and longitude of 92.4 E., near a spurline running north from the Trans-Siberian Railroad. The facility was not discovered until mid-July because the U. S., for reasons of economy, has not been making frequent, large area searches using the USAF/Lockheed Big Bird and KH-11 reconnaissance satellites.

On June 20, a Big Bird satellite was launched from Vandenberg AFB, Calif., by a Titan 3D, into a 96-deg. inclined orbit with a perigee of 163 km. (101 mi.) and an apogee of 218 km. (136 mi.). Ap-

proximately three weeks later, analysts at the Central Intelligence Agency's National Photographic Interpretation Center spotted the new radar.

Earlier the Soviets had installed three ballistic missile early warning radars. The first, at Pechora—near the Arctic Circle and just west of the Ural Mountains—is functionally similar to the U.S. ballistic missile early warning system radars installed at Thule, Greenland, and Clear, Alaska, to detect ICBM launches.

Two other Soviet early warning radars are oriented to detect submarine-launched ballistic missiles, a function comparable with the USAF/Raytheon Pave Paws radars now operational at Otis AFB, Mass., and Beale AFB, Calif., and two more planned for installation in Georgia and Texas. The Soviet counterparts are near Kiev, with coverage of the Mediterranean and eastern Atlantic, and Komsomolskna-Amure, northeast of Japan's Hokkaido Island, which provides coverage to the south and southeast.

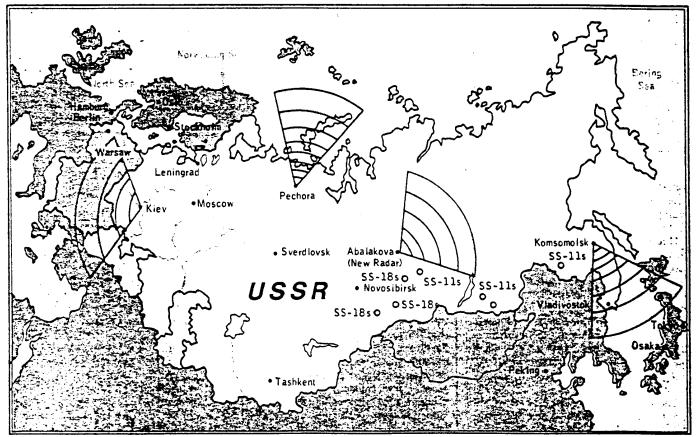
Under terms of Article 6-b of the Antiballistic Missile Treaty, the U.S. and USSR agreed "not to deploy in the future radars for early warning of strategic ballistic missile attack except at locations along the periphery of its national territory and oriented outward."

The Soviet early warning radars installed at Pechora, Kiev and Komsomolsk are situated along the periphery of the USSR and are oriented outward.

The new radar at Abalakova is located approximately 600 mi. from the border of Mongolia, which has a Soviet-oriented government, raising the question of whether its location qualifies as being along the periphery of the USSR. The Abalakova radar appears to be oriented outward but to the northeast rather than south across the nearby border with Mongolia. This would enable it to detect Trident missiles launched from submarines in the Bering Sea or Gulf of Alaska.

The Abalakova radar also could detect launches of U.S. ICBMs that, together with data obtained from the Pechora radar, would permit triangulation and a more accurate attack assessment than is possible from a single radar.

It is the proximity of the new radar to three of the six Soviet SS-18 missile fields.



New Soviet ballistic missile radar at Abalakova, shown in red, is a potential violation of the U. S.-USSR Antiballistic Missile Treaty, which specifies radars used for early warning functions are to be located along the periphery of the country and oriented outward. Its proximity to three of the Soviet Union's six SS-18 heavy ICBM fields, as well as to several SS-11 ICBM fields, indicates it could have an antiballistic missile mission.

ECMINUED'